



Bilkent University  
Department of Mathematics

## PROBLEM OF THE MONTH

**Term:** July-August 2025

Let  $a, b, c$  be pairwise relatively prime positive integers satisfying  $a > bc$ . For any two positive integers  $m < n$  we say that  $m$  is a *successor* of  $n$ , if for every pile of stones with weights  $a, b, c$  and total weight  $n$ , it is possible to remove some stones and obtain a new pile with total weight  $m$ . Find the greatest positive integer that does not have any successor.